

<b>Interview Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/603,014	HAWKINS, JEFFERY SCOTT	
	<b>Examiner</b>	<b>Art Unit</b>	
	Daniel J. Cavallari	2836	

All participants (applicant, applicant's representative, PTO personnel):

(1) Daniel J. Cavallari. (3) Brian Sircus.  
 (2) Steve Permut. (4) \_\_\_\_\_.

Date of Interview: 11 May 2006.

Type: a) Telephonic b) Video Conference  
 c) Personal [copy given to: 1) applicant 2) applicant's representative]

Exhibit shown or demonstration conducted: d) Yes e) No.  
 If Yes, brief description: \_\_\_\_\_.

Claim(s) discussed: 1,18 and 19.

Identification of prior art discussed: \_\_\_\_\_.

Agreement with respect to the claims f) was reached. g) was not reached. h) N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: The differences between the applicant's invention and the prior art cited (Hanson) was discussed. Applicant was advised to revise the claim language to clarify the existence of three conditions, those being a voltage being low, a temperature being outside a determined range, and an engine coolant being below a predetermined limit.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

\_\_\_\_\_  
 Examiner's signature, if required

## Summary of Record of Interview Requirements

### Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

### Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

#### 37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,  
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

### Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

# Attachment A

## PROPOSED AMENDMENT TO BE ENTERED BY EXAMINER

### In the Claims:

1. (Currently Amended) A method for automatically starting and stopping an internal combustion engine installed in a vehicle having an electronic engine control system in communication with a starter motor and a plurality of fuel injectors, the method comprising:

- (a) determining in any sequence that one of the following three conditions exist, exists: a voltage of a battery is below a predetermined limit, a temperature of the engine is below a predetermined limit, or a temperature of a cab of the vehicle is outside of a predetermined temperature range;
- (b) once a positive indication of one of said conditions exists; confirming that a hood is closed, that a transmission is in neutral, and that a park brake is set;
- (c) confirming that a fuel level is above a predetermined level; and
- (d) starting the engine.

2. (Previously Presented) The method of automatically starting and stopping the combustion engine set forth in Claim 1 further comprising warning an operator of a pending engine start before step (d).

3. (Previously Presented) The method of automatically starting and stopping the combustion engine set forth in Claim 1 further comprising:

- (e) confirming that an ignition switch is in an on position and the engine is idling after step (d); and
- (f) automatically shutting down the engine.

4. (Previously Presented) A method of automatically starting and stopping an internal combustion engine installed in a vehicle having an electronic engine control system in communication with a starter motor and a plurality of fuel injectors, the method comprising:

- (a) determining that one of three conditions exist, a voltage of a battery is below a predetermined limit, a temperature of the engine is below a predetermined limit, or a temperature of a cab of the vehicle is outside of a predetermined temperature range;
- (b) confirming that a hood is closed, that a transmission is in neutral, and that a park brake is set;
- (c) confirming that a fuel level is above a predetermined level;
- (d) starting the engine;
- (e) confirming that an ignition switch is in an on position and the engine is idling;
- (f) enabling an idle shutdown timer;
- (g) initiating a pre-programmed countdown of the shutdown timer to automatic engine shutdown;
- (h) confirming that an active switch has been placed in an on position prior to expiration of the countdown; and
- (i) automatically shutting down the engine.

5. (Previously Presented) The method of automatically starting the combustion engine set forth in Claim 4 further comprising confirming that the hood is

closed, that the transmission is in neutral, and that the park brake is set prior to step (f) and after step (e).

6. (Previously Presented) The method of automatically starting and stopping the combustion engine set forth in Claim 5 further comprising warning an operator of a pending engine start immediately before step (d).

7. (Previously Presented) The method of automatically starting and stopping the combustion engine set forth in Claim 6 further comprising:

confirming the engine did not start after step (d);  
initiating a pre-programmed time delay;  
attempting a second engine start;  
confirming the engine did not start; and  
deactivating the engine control system.

8. (Canceled)

9. (Canceled)

10. (Canceled)

11. (Canceled)

12. (Canceled)

13. (Previously Presented) An engine control system for automatically starting and stopping a vehicle combustion engine at idle via a series of fuel injectors and a starter motor, the engine control system comprising:

a battery having a positive lead;

an engine control module;

a first enabler circuit providing a digital input to the engine control module, the first enabler circuit having a park brake switch, a hood switch, and a neutral gear switch, wherein the park brake switch, the hood switch and the neutral gear switch are wired in series and grounded;

a fuel level switch engaged electrically to the engine control module for indicating a low fuel level condition below a predetermined amount which overrides automatic starting of the engine by the engine control system;

a second enabler circuit extending electrically between the positive lead and the engine control module, the second enabler circuit having an ignition switch having an on position for enabling the engine control system; and

wherein the second enabler circuit has the fuel level switch which is wired in series between the ignition switch and the ECM.

14. (Previously Presented) An engine control system for automatically starting and stopping a vehicle combustion engine at idle via a series of fuel injectors and a starter motor, the engine control system comprising:

a battery having a positive lead;

an engine control module;

a first enabler circuit providing a digital input to the engine control module, the first enabler circuit having a park brake switch, a hood switch, and a neutral gear switch, wherein the park brake switch, the hood switch and the neutral gear switch are wired in series and grounded;

a fuel level switch engaged electrically to the engine control module for indicating a low fuel level condition below a predetermined amount which overrides automatic starting of the engine by the engine control system; and

wherein the first enabler circuit has the fuel level switch which is wired in series with the park brake switch, the hood switch and the neutral gear switch.

15. (Original) The engine control system set forth in Claim 14 comprising a low voltage input to the engine control module for initiating an automatic engine start on low battery voltage.

16. (Original) The engine control system set forth in Claim 14 comprising an engine temperature input for initiating an automatic engine start on low engine temperature.

17. (Original) The engine control system set forth in Claim 14 comprising:  
a thermostat controller;  
a thermostat input extended between the thermostat controller and the ECM; and

a thermistor for measuring temperature within a cab of the vehicle and inputting the signal into the thermostat controller which outputs an initiating signal to the engine control module via the thermostat input.

18. (Currently Amended) An engine control system for automatically starting and stopping a vehicle combustion engine at idle; the system comprising:

an engine control module for receiving inputs and providing an initiating output for starting and stopping the engine, said engine control module determining in any sequence that one of the following three conditions exists: a voltage of a battery is below a predetermined limit, a temperature of the engine is below a predetermined limit, or a temperature of a cab of the vehicle is outside of a predetermined temperature range;

an input for sending an initiating signal to the engine control module from a monitoring sensor to allow said engine control system to automatically start said engine by at least in-part closing a starter relay; and

a first safety enabler circuit monitoring a first set of parameters once a positive indication of one of said condition exists whereby each parameter is orientated with a respective grounded switch and opening of any one switch will prevent the engine control module from closing the starter relay thereby prevent starting of said engine; and wherein one of the switches is orientated with a predetermined level of fuel in a fuel tank for said engine.

19. (Currently Amended) An engine control system for automatically starting and stopping a vehicle combustion engine at idle; the system comprising:

an engine control module for receiving inputs and providing an initiating output for starting and stopping the engine determining in any sequence that one

of the following three conditions exists: a voltage of a battery is below a predetermined limit, a temperature of the engine is below a predetermined limit, or a temperature of a cab of the vehicle is outside of a predetermined temperature range;

an input for sending an initiating signal to the engine control module from a monitoring sensor to allow said engine control system to automatically start said engine by closing a starter relay;

a first safety enabler circuit monitoring a first set of parameters once a positive indication of one of said conditions exists such that when any one of said parameters is outside of a predetermined range, the safety enabler circuit will prevent the engine control module from closing the starter relay; and

one of the parameters in said first set of parameters being the level of fuel in a fuel tank for said engine and said predetermined range being above a predetermined level.

20. (Previously Presented) The method of automatically starting and stopping the combustion engine set forth in Claim 3 further comprising the step of confirming that the vehicle is not moving and that the engine temperature is above a prescribed value at step (e).